

## **REMARKS**

### **I. Status of Claims**

By this Amendment, claims 1, 7, 12, 15, 19, 35, 36, and 38 have been amended.

No new matter has been added. Claims 1-53 are present in this application and pending on the merits.

### **II. Claim Amendments**

Applicant has amended independent claims 1, 19, 35, 36, and 38 to recite, *inter alia*, “a first pigment component comprising particulate GCC having a psd steepness factor ranging from about 30 to less than 38,” which is fully supported by at least page 4, lines 11-12, of the original-filed application. Applicant respectfully submits that this amendment simply claims less than the full scope of the disclosed range – a legitimate procedure for inventors entitled to decide the bounds of protection they seek. See, e.g., *In re Johnson*, 558 F.2d 1008 (C.C.P.A. 1977); see also MPEP 2163.05 (III), citing, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976) (finding that the claimed range “between 35% and 60%” was fully described by the specification’s recitation of “25% - 60%.”)

Applicant has also amended claim 7 to recite, *inter alia*, “wherein the weight ratio is at least about 70:30,” which is fully supported by at least page 15, lines 11-14, of the originally-filed application. Claims 12 and 15 have been amended to correct minor typographical errors. Accordingly, no new matter has been added by these amendments, and Applicant respectfully requests that they be entered without objection.

### III. Rejection under 35 U.S.C. § 102

The Office has rejected claims 1, 5-17, 19-33, 35-43, and 47-53 under 35 U.S.C. § 102(b) as anticipated by WO 00/66510 to Lyons et al. (“Lyons”). The Office asserts that Lyons discloses a composition comprising ground calcium carbonate (“GCC”) particles and precipitated calcium carbonate (“PCC”) particles. See Office Action dated May 9, 2007 at 2. Moreover, the Office asserts that Lyons discloses that the calcium carbonate particles may have a steepness factor larger than 38 for GCC and larger than 50 for PCC. *Id.* Finally, the Office asserts that Lyons further teaches that the composition may comprise a particle size of both calcium carbonates of less than 0.8 µm. *Id.* For at least the reasons already of record in Applicant’s Response to Office Action dated August 30, 2007, as well as those presented below, Applicant respectfully traverses the rejection.

In order to show anticipation, the Office must provide a single reference that discloses, either expressly or inherently, each and every element of the pending claims. See MPEP § 2131. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” *Id.* (quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236 (Fed. Cir. 1989)).

As amended herein, each of the independent claims 1, 19, 35, 36, and 38 recites, *inter alia*, “a first pigment component comprising particulate GCC having a psd steepness factor ranging from about 30 to less than 38 . . .” This recitation is not taught by Lyons. As admitted by the Office, Lyons discloses only that, in accordance with its invention, the GCC calcium carbonate particles may have a steepness factor of

“greater than about 38.” See Lyons at page 8, lines 12-17; claim 1. For at least this reason, Lyons fails to disclose all of the subject matter recited in each of Applicant’s independent claims, and thus, Lyons cannot anticipate those independent claims or the claims that depend therefrom.

In fact, Lyons explicitly teaches away from a GCC having a steepness factor of less than 38, as recited in the amended independent claims. In the examples section, Lyons compares five calcium carbonate/kaolin compositions in accordance with its teachings (Examples 1-5) with the “comparative example” composition of Example 6. The only disclosed difference between Example 1 and Example 6 is the use of “GCC A” in Example 1 and the use of “GCC B” in Example 6. Lyons discloses that, while both GCC A and GCC B have a median particle size of 0.7 $\mu$ m, GCC A has a steepness factor in accordance with its teachings (43), while GCC B does not (about 30). Upon comparison, Lyons concludes that “the pigment compositions and coating formulations embodying the present invention, Examples 1 to 5, give superior combination of sheet brightness and gloss.” Page 32, lines 5-9.

Moreover, the comparative compositions of Examples 7 and 8 both also comprise a GCC which is not in accordance with its teachings (*i.e.* a steepness factor not “greater than about 38”). Example 7 again utilizes GCC B, which possesses a steepness factor of about 30, and Example 8 utilizes “GCC C”, which is disclosed as possessing a steepness factor of about 36. However, with regards to the compositions of both Examples 7 and 8, Lyons states that “[t]he ISO sheet brightness obtained . . . is unacceptably lower than the values for Examples 1-5.” Page 33, lines 3-5, 21-23.

Therefore, not only does Lyons fail to disclose, either expressly or inherently, each and every element of the pending claims in as complete detail as is contained in the pending claims, but Lyons also teaches away from at least the steepness factor recited for the first pigment component comprising particulate GCC of from about 30 to less than 38. Because each of claims 5-17, 20-33, 37, 39-43, and 47-53 depends from one of the independent claims reciting, *inter alia*, “a first pigment component comprising particulate GCC having a psd steepness factor ranging from about 30 to less than 38,” they are also not anticipated by Lyons. As such, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 5-17, 19-33, 35-43, and 47-53 under 35 U.S.C. § 102(b) based on Lyons.

#### **IV. Rejections under 35 U.S.C. § 103**

##### **A) Lyons in View of Nishiguchi**

The Office has rejected claims 2-4 and 18 under 35 U.S.C. § 103(a) as obvious over Lyons in view of U.S. Patent No. 5,879,442 to Nishiguchi et al. (“Nishiguchi”). The Office admits that Lyons is silent with regards to the ratio of the amount of GCC to PCC, but believes that Nishiguchi teaches the claimed ratios and that it would have been obvious to the skilled artisan to have combined the teachings of Lyons with the ratio of Nishiguchi. See Office Action dated May 9, 2007 at 6. For at least the reasons already of record in Applicant’s Response to Office Action dated August 30, 2007, as well as those presented below, Applicant respectfully traverses the rejection.

Questions regarding obviousness under 35 U.S.C. § 103(a) are resolved on the basis of underlying factual determinations, including (1) the scope and content of the

prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18, 148 U.S.P.Q. (BNA) 459, 467 (1966); see also *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734, 82 U.S.P.Q.2d 1385, 1391 (2007) (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”). This long standing test has not been met here.

Whatever Nishiguchi may teach about the ratio of GCC to PCC in a paper coating composition, like Lyons, it fails to teach or suggest at least a composition comprising GCC having a psd steepness factor ranging from about 30 to less than 38 in combination with a PCC having a psd steepness factor ranging from about 55 to about 75, as claimed. Nor does Lorusso recognize the surprising synergistic effect achieved by the combination of the two. Therefore, the combination of Lyons and Nishiguchi fail the render the pending claims obvious under 35 U.S.C. § 103, and Applicant respectfully requests that the rejection of claims 2-4 and 18 be withdrawn.

**B) Lyons in View of Lorusso**

The Office has rejected claims 45 and 46 under 35 U.S.C. § 103(a) as obvious over Lyons in view of U.S. Patent Application No. 2005/0126730 to Lorusso (“Lorusso”). The Office appears to admit that Lyons does not teach a kaolin with a shape factor of greater than about 30, but asserts that it would have been obvious to one of ordinary skill in the art to combine the high shape factor kaolin of Lorusso with the composition of Lyons. See Office Action dated May 9, 2007 at 7. In particular, the Office asserts that the skilled artisan would have been motivated by the fact that Lorusso is also drawn to a

composition for paper and teaches that kaolin particles with a shape factor larger than 60 are suitable for paper filler. *Id.* For at least the reasons already of record in Applicant's Response to Office Action dated August 30, 2007, as well as those presented below, Applicant respectfully traverses the rejection.

Whatever Lorusso may say about the shape factor of kaolin, it also fails to remedy the defects of Lyons explained above. Like Lyons and Nishiguchi, Lorusso also fails to teach or suggest at least a composition comprising GCC having a psd steepness factor ranging from about 30 to less than 38 in combination with a PCC having a psd steepness factor ranging from about 55 to about 75, as claimed. Nor does Lorusso recognize the surprising synergistic effect achieved by the combination of the two. Therefore, the combination of Lyons and Lurocco also fails to render the pending claims obvious under 35 U.S.C. § 103, and Applicant respectfully requests that the rejection of claims 45 and 46 be withdrawn.

## **V. Conclusion**

For at least the above-outlined reasons, Applicant respectfully requests entry of the claim amendments included herein, reconsideration of this application, withdrawal of the claim rejections, and allowance of pending claims 1-53.

Applicant respectfully submits that the final Office Action contains a number of assertions concerning the related art and the claims. Regardless of whether those assertions are addressed specifically herein, Applicant respectfully declines to automatically subscribe to them.

If the Examiner believes that a telephone conversation might advance prosecution, the Examiner is cordially invited to call Applicant's undersigned attorney at (404) 653-6430.

Please grant any extensions of time required to enter this Amendment and charge any additional required fees to our Deposit Account 6-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

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By: /Jeffrey A. Freeman/  
Jeffrey A. Freeman  
Reg. No. 58,275